

Identification of the Best Methods of Firefighter Training at the
Menomonie Fire Department and Rice Lake Fire Departments

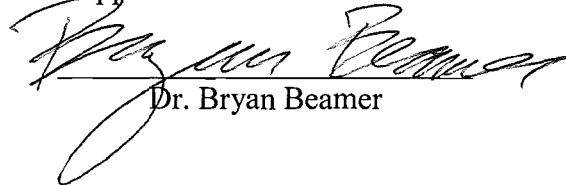
by

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A Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Master of Science Degree
in

Risk Control

Approved: 2 Semester Credits

A handwritten signature in black ink, appearing to read "Bryan Beamer", is written over a horizontal line.

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December, 2009

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Title: *Identification of the Best Methods of Firefighter Training at the
Menomonie Fire Department and Rice Lake Fire Departments*

Graduate Degree/ Major: MS Risk Control

Research Adviser: Bryan Beamer, Ph.D.

Month/Year: December, 2009

Number of Pages: 68

Style Manual Used: American Psychological Association, 6th edition

ABSTRACT

The purpose of this study was to evaluate the methods of training currently in use by the Menomonie and Rice Lake fire departments. To achieve the purpose of this study four goals were established: 1) analyze training of full-time firefighters and Paid On Call (POC) firefighters at the Menomonie Fire Department (MFD) and Rice Lake Fire Department (RLFD), 2) determine the most effective methods of training by means of a survey of MFD and RLFD firefighters and analysis of the results, 3) make recommendations to the MFD and RLFD to make its training more effective and efficient while meeting applicable codes and 4) survey firefighters to determine what they feel is the most practical and effective in terms of training.

To maximize the effectiveness of firefighter training the author developed the following conclusions:

1. Whenever possible, hands-on training should be utilized.
2. Classroom training should be kept to a minimum.
3. Implementing closely monitored mentoring programs over the next five to ten years.

Acknowledgments

My journey of completing this master's degree has been aided by the support of many individuals. First I would like to thank the Risk Control Department at UW-Stout, particularly Dr. Brian Finder for giving me the opportunity to further develop myself into a safety professional and Dr. Bryan Beamer for providing me much needed guidance with this process. Someone else who greatly contributed to the success of this project was Dr. Sally Dresdow; without her help this would never have been possible. I would also like to thank the Rice Lake and Menomonie Fire Departments for providing all the time and assistance I needed to complete this project. Finally, to all my friends, family and classmates who kept me on track in the good times and the hectic ones, I would not have been able to do this without their support.

TABLE OF CONTENTS

	Page
ABSTRACT	ii
List of Tables	vii
List of Figures	viii
Chapter I: Introduction.....	1
Statement of the Problem	2
Purpose of the Study	3
Assumptions of the Study	3
Definition of Terms.....	3
Chapter II: Literature Review	6
Introduction.....	6
Firefighter Training Standards	6
Effective Training Methods	7
On-the-job	7
Classroom.....	8
Mentoring.....	8
Customized training	9
Computer-based	10
Evaluation of Training	10
Best Surveying Practices.....	11
Summary	14

Chapter III: Methodology	15
Introduction	15
Subject Selection and Description	15
Data Collection	17
Data Analysis	17
Limitations	19
Summary	19
Chapter IV: Results and Discussion.....	20
Purpose of Study	20
Overview	20
Results.....	20
Part One.....	21
Part Two	22
Part Three.....	30
Summary	32
Chapter V: Conclusions and Recommendations.....	33
Introduction	33
Limitations	33
Summary	33
On-the-job	33
Classroom.....	33
Customized.....	34
Mentoring.....	34

Computer-based	34
Recommendations	35
Primary Recommendations	35
Secondary Recommendations	36
Recommendations for Future Research	36
References	37
Appendix A: Human Consent Form	40
Appendix B: Survey Instrument	42
Appendix C: Raw Data from RLFD Questionnaires	45
Appendix D: Raw Data from MFD Questionnaires	52

List of Tables

Table 1: Employment Status MFD and RLFD	21
Table 2: Level of Training MFD and RLFD.....	21
Table 3: Years Experience MFD and RLFD	22

List of Figures

Figure 1: Response To “Computer-Based Training as Preferred Training Environment”	23
Figure 2: Response To “Classroom Training as Preferred Training Environment”	24
Figure 3: Response To “On-the-Job Training as Preferred Training Environment”	24
Figure 4: Response To “Hands-On Elsewhere as Preferred Training Environment”	25
Figure 5: Response To “Hands-On at Fire Department as Preferred Training Environment”	25
Figure 6: Summary Preferred Training Environment RLFD and MFD	26
Figure 7: Response To” The MFD and RLFD Adequately Prepares Me to do My Job Safely”.27	
Figure 8: Instructor Preference Type MFD and RLFD.....	28
Figure 9: Response To “I am Confident in My Ability to Adequately Perform My Job Proficiently MFD and RLFD”	29
Figure 10: Response To “I Have the Experience to Act as a Mentor MFD and RLFD”	29

Chapter I: Introduction

The events of September 11, 2001 brought major attention to fire department preparedness across the United States. In order to accurately determine preparedness across the nation, the National Fire Protection Association (NFPA) surveyed fire departments from coast to coast. Two studies were performed, one in 2001 and one in 2005 (NFPA, USFA, & DHS 2006). The main goals of the 2001 study were to define the current roles of fire departments, determine adequacy of funding, and provide a needs assessment to identify shortfalls (NFPA, USFA 2002). One of the major issues that was revealed by this study was on the subject of firefighter training.

Lack of training in the United States is a very serious issue in many areas of fire departments' responsibilities. According to a national fire department needs assessment study conducted by NFPA, the United States Fire Administration (USFA) and the United States Department of Homeland Security (DHS) (2006), 53 percent of fire departments across the United States that engage in structural firefighting have firefighters that lack formalized training in firefighting. In 2007, a similar study was conducted by NFPA, USFA and DHS at the state level and it was revealed that 29 percent of Wisconsin firefighters lacked formal training in structural firefighting (NFPA, USFA, & DHS 2007). In the above mentioned 2006 national study it was revealed that 12 percent of firefighters serve on departments that have no members certified to engage in structural firefighting. On the Emergency Medical Services (EMS) side, 36 percent of fire departments across the United States who provide the service lack personnel who have formalized training in EMS (NFPA, USFA & DHS 2006).

Effective training is key to a well-functioning fire department. As William Peterson (1991) states, "The level of performance demonstrated by a fire department is usually a good indication of the type, quantity, and quality of training provided" (p. 9-64). Ensuring that firefighters are

properly trained to perform at a high level poses a challenge to the fire departments that employ the firefighters. According to MFD full-time firefighter Rick Schimmel, (personal communication, September 30, 2009) quality training includes several key elements such as time, funding and qualified experienced personnel to perform the training. Without one of those key elements, there is greater potential for mistakes.

Training at the MFD and RLFD is an on-going issue like any other department. It operates using both full-time firefighters and POCs. This was done to reduce staffing costs that are unnecessary for a majority of the work that the MFD and RLFD perform. At the MFD and RLFD, POCs are a vital component of ensuring quick and effective responses to structural and wild land fires (Rick Schimmel, personal communication, September 30, 2009). POCs are called to respond to situations that arise that go beyond what the full-time firefighters have the manpower to do; however they do not play a major role in the day to day operations of the MFD. In 2008 on average, full-time firefighters worked 236 hours per month and POCs worked five hours per call; their total number of hours worked per month varied based on how many calls they responded to (MFD 2009). In 2008, on an average month an MFD POC received five hours of formal training per month compared to 15 hours per month for a full-time firefighter (MFD 2009). According to MFD Chief John Baus (personal communication, September 20, 2009) full-time firefighters, as part of their daily duties, perform facility inspections which also serve as informal training sessions.

Statement of the Problem

Fire departments have a limited number of hours per month to train their firefighters. The MFD and RLFD are no different. With the reality of having a limited timeframe to train

firefighters to be proficient, it is imperative that the MFD and RLFD implement the most effective methods of training.

Purpose of the Study

The goals of this study were to:

1. Analyze training of full-time firefighters and POC firefighters at MFD and RLFD
2. Determine the most effective methods of training by means of a survey of MFD and RLFD firefighters and analysis of the results
3. Make recommendations to the MFD and RLFD to make its training more effective and efficient while meeting applicable codes
4. Survey firefighters and see what they feel is the most practical and effective in terms of training

Assumptions of the Study

1. Active POC firefighters are certified at a minimum, the Wisconsin Entry I level, and the law regarding that minimum standard will not change over the course of the study.
2. Full-time firefighters are certified at a minimum, the Wisconsin Firefighter I level, and the law regarding that minimum standard will not change over the course of the study.

Definition of Terms

Aerial. “Any extendable or articulating device that is designed to position firefighters and handle firefighting equipment” (Wisconsin Department of Commerce 2002)

Apparatus. “Vehicle used for emergency operations” (Wisconsin Department of Commerce 2002)

Full-time Firefighter. “Individuals who receive a wage and benefit package to perform fire suppression, rescue, hazardous materials and emergency medical services on a full-time basis.” (James Resac, personal communication, September 20, 2009)

Paid-on-call firefighter. “Individuals trained to a state-specified level, pager equipped, but not a career member. POC’s are paid a wage for attending training sessions and for responding to emergency incidents but receive no benefits.” (James Resac, personal communication, September 20, 2009)

Pumper. “A piece of fire apparatus with a permanently mounted fire pump that has a rated discharge capacity of 750 gallons per minute or greater” (NFPA 2009)

Structural firefighting. “Any activity related to controlling and extinguishing an unwanted fire or fire set for training firefighters, including any activity that exposes a firefighter to the danger of heat, flame, smoke, or any product of combustion, explosion or structural collapse, but does not include any activities pertaining to wild land fires” (Wisconsin Department of Commerce 2002)

Trainee “A person being trained, especially in a vocation; apprentice” (Webster’s College Dictionary 1995 p. 1414)

Trainer “A person or thing that trains” (Webster’s College Dictionary 1995 p. 1414)

Wisconsin Entry Level I and II. “Introduces the participant to the basic knowledge and skills necessary to safely perform fire fighting functions under direct supervision. The targeted audience is individuals new to the fire fighting field. These courses include: training in protective equipment and breathing apparatus, placing ground ladders, stretching hose lines, nozzle selection and handling, building search and rescue, ventilation and awareness to hazardous materials. These courses, when taken in sequential order, are designed to provide the fire

department member with the minimum fire fighter training as specified in Wisconsin Administrative Code, Department of Commerce, Chapter 30, *Fire Department Safety and Health*.” (Lakeshore Technical College 2009)

Wisconsin Firefighter Level I. “Candidates shall have met the requirements defined in sections 2-c1 through 2-3 and the job performance requirements defined in sections 3-2 through 3-5 of NFPA 1001, *Standard for Fire Fighter Professional Qualifications* and in Chapter 2, Competencies for the First Responder at the Awareness Level of NFPA 472, *Standard for Professional Competence of Responders to Hazardous Materials Incidents*.” (Wisconsin Technical College System 2002)

Wisconsin Firefighter Level II. “Candidates shall have met the Wisconsin Certified Fire Fighter I shall meet the job performance requirements defined in Sections 4-2 through 4-5 of NFPA 1001 and the requirements defined in Chapter 3, Competencies for the First Responder at the Operational Level of NFPA 472.” (Wisconsin Technical College System 2002)

Limitations of the Study

This study had a number of limitations. They were:

1. Only two municipal fire departments were being considered in the study
2. Training was evaluated over a three month timeframe
3. Results of the research and recommendations from the research was limited to the MFD and RLFD

Chapter II: Literature Review

The purpose of this study was to evaluate firefighter training methods and determine the most effective ones. The literature review consists of four major sections. In the first section the current standards for firefighter training are laid out. From there the transition is made to what effective training methods are currently in use by organizations. Training evaluation is discussed in the third portion. To end the literature review and set the stage for the methodology section, best surveying practices are discussed.

Firefighting Training Standards

There are no universal federal requirements for firefighter training in the United States. NFPA guidelines for training exist but it is up to the individual states to decide what parts of the standards they want to adopt. According to the Wisconsin Department of Commerce as specified in Comm Chapter 30.08 (2002), in order for a firefighter to engage in structural firefighting in the State of Wisconsin the following requirements must be met:

- Training requirements set forth by the Wisconsin Technical College board
- An approved state apprenticeship program
- An in-house training program approved by the Wisconsin Technical College system board or
- NFPA 1001

For a firefighter to operate a pumper truck or an aerial, the following requirements must be met as specified under the same standard as listed above:

- Training requirements set forth by the Wisconsin Technical College board
- An approved state apprenticeship program

- An in-house training program approved by Wisconsin Technical College system board or
- NFPA 1002

In order for a firefighter to be legally classified as a fire officer, the following requirements must be met within 12 months as set forth by Comm Chapter 30.08 (2002):

- Training requirements set forth by the Wisconsin Technical College board
- An approved state apprenticeship program
- An in-house training program approved by Wisconsin Technical College system board or
- NFPA 1021

Effective Training Methods

Effective training involves connecting with the trainee's individual learning style. In a study conducted by John Petrakis (2003), three learning styles relevant to fire service training were identified. Those styles were: visual, auditory and kinesthetic. Not all firefighters will respond the same to one training style (Petrakis). To overcome the challenge of effectively instructing trainees with significantly different learning styles, it has been suggested that trainers pair up trainees with opposite learning styles and have them mentor one another when possible (Tall & Hall 1998). In order to effectively reach these three types of learning styles mentioned above, training materials must be designed accordingly (Petrakis).

On-the-job training. Beyond simply isolating each learning style, there is debate about how training is best retained by trainees. The debate of the training environment also surfaces: classroom versus the workplace and which setting is better for firefighters. On-the-job training provides a prime location for applicable skills to be acquired as it best illustrates site-specific

concerns (Robotham 2001). This is acceptable for many vocations. The problem with this as it relates to firefighting is that the workplace changes constantly on calls. From another view point, Fred Manske (1966) states that on-the-job training removes the challenge of having to transfer a skill learned in the classroom and apply it to a work situation, because there is no time lapse from instruction to application of the skill.

Classroom training. The classroom may not be the most exciting place to conduct training but in many cases it is a prime location to introduce a new topic. Training in this setting can illustrate situations that can occur in the workplace that other forms of training cannot effectively or safely address. The classic example of this is the “what’s wrong with this picture” situation (Valencia, Link, Baukal, & McGuire 2008). Classroom environments can show pictures or illustrations of these examples, and make firefighters aware of potentially hazardous situations without exposing them to the dangers associated with them. This type of training has a vital role in ensuring successful fire department operations but as Valencia, Link, Baukal and McGuire point out, the training must also be fun in order to maintain the interest of the trainees (2008).

Mentoring. Mentoring involves pairing up an employee with many years of experience with one that is relatively new to the organization (Messmer 2002). In a fire department situation it would typically involve pairing an experienced firefighter with a relatively inexperienced one. The benefits of this arrangement include giving the inexperienced firefighter someone to model their self after and go to with questions and concerns they encounter. Not all experienced firefighters are “cut out” for this responsibility. D.A.L. Macafee (2008) spells out the preferred characteristics of a mentor:

- Trusted and faithful guide

- Facilitator
- Coach
- Sounding board
- Critical friend
- Networker
- Role model

These key qualities are essential in order for the arrangement to serve any positive purpose.

Benefits of this situation are not only limited to the inexperienced firefighter, but also to the mentor whose leadership skills will further develop (Messmer).

Customized training. Customized training is usually conducted by a training consulting firm that sets up training programs unique to an organization's needs. In-house training of this type is typically more expensive than other types of training and is used primarily when an organization's internal training staff does not possess the expertise to cover a certain topic. The programs are customized to fit an individual organization's training needs. This is not a new concept; it is becoming a trend that training consulting firms are moving away from "canned" presentations that they would use for multiple organizations (Koonce 2004).

Computer-based training. According to USFA, “The most effective way of learning how to fight fire is to fight fire” (USFA 2009, para. 1). Simply stated, there is no substitute for the real thing. Ever-tightening training budgets and time constraints are making this reality less achievable due to fire departments no longer being able to afford to do the real thing as often. This brings computer-based training into the spotlight. Computer programs now have the capability of simulating a structure fire in an actual building in the area the fire department is located in (Rick Schimmel, personal interview, September 30, 2009). For training purposes the firefighter can do just about everything they would during a real call from apparatus placement to securing water supplies (Rick Schimmel, personal interview, September 30, 2009).

Currently one of the hot issues regarding computer-based training is just exactly how far it will go in terms of replacing the classroom altogether. In some situations such as in the military, computer-based training has eliminated the classroom and students are free to go at their own pace (Strachan 2007). In a study conducted by Mayur Desai (2000), it was concluded that computer-based training was more effective than instructor-based training. That study ultimately recommended that computer-based training should be used as a starting point, and lead into instructor-based training as skills progress. The Federal Aviation Administration (FAA) supports the notion of computer-based training by allowing pilot trainees to do their initial instrument training in this way (Homan & Williams 1998).

Evaluation of Training

Evaluation is an essential component of the training process. It allows trainers and training program managers to refine training and identify and correct training deficiencies (Simpson & Oser, 2003). James Wells (2008) takes this one step further in stating that evaluation can protect against potential lawsuits. This applies especially to fire departments

where medical liability issues with an ambulance service could arise, and any lack of training could open the door to legal problems. This is why evaluation of training programs is vital to an organization like a fire department.

One of the most commonly accepted methods of evaluating training was designed by Don Kirkpatrick (2006) who broke down training evaluation into four levels:

- Reaction
- Learning
- Behavior
- Results

The reaction level details how the trainees liked the training and whether or not it was interactive and interesting (Kirkpatrick). The learning level describes what the trainees took away from the training. It measures if the trainees came away with more knowledge on the topic or not.

Behavior level is a practical application of the learning level; its purpose is to determine if the trainees are using their new skills in the field. Finally, the results portion should be able to yield a tangible product as a result of the training. For instance, increased productivity may be the outcome of an enhanced skill.

On-the-job training poses an interesting challenge to evaluation. It is often undocumented and in the case of some fire departments, it is not counted toward the total number of training hours for a month. In these situations, inspections and every emergency run can serve as on-the-job training (John Baus, personal communication, September 20, 2009). Evaluating this type of training is difficult because it is not treated as training but simply as the duties of the job (Gorovitz, 1983).

Best Surveying Practices

According to Alreck and Settle (1995) surveys are performed for one of three basic reasons:

- They want to influence or persuade some audience
- They want to create or modify a product or service they provide for a particular public
- They want to understand or predict human behavior or conditions because it is the focus of their academic or professional work

The focus of the survey for the purposes of this paper was to understand a human behavior.

Surveys are useful only if they are able to yield the data desired. In the field of training evaluation, an effective survey would reveal an individual participant's training preferences and disclose the best way for that individual to retain knowledge. Jesse Meltz (2009) states, "By establishing an effective survey, the goals of this study will be clearly understood by the participants resulting in the best, most accurate, answers (p.11)." This emphasizes that the objectives of a study must be clear to the respondent in order to receive the best answers from them.

The first step in designing a survey is to define the objectives that the study needs to answer (Brace 2004). Once the objectives are stated then it is possible to develop questions that will directly address these objectives. These questions must be written in a way that the respondents will clearly understand, thus yielding desired information and increasing the likelihood that they will complete and return the survey. Questions should also be written in a form that will give results that can be analyzed in the way that is required (Brace).

Surveys can contain two types of questions: open and close ended. Open-ended and unstructured questions do not guide the respondent and a wide range of answers is possible. Questions that are specific will yield answers that are more relevant to the study and less open to interpretation (Converse & Presser 1986). This still allows the respondent to share their personal thoughts that would otherwise not be revealed in a closed-ended question. Open-ended questions are usually very simple to formulate but at the same time they can be difficult and time-consuming to analyze (Brace 2004).

On the other hand, closed-ended questions are guided and set the respondent up for a limited range of possible answers. The answers for these types of questions can range from “yes” or “no” answers to “pick from one of the following options”. Closed-ended questions are usually the preferred type to use in a survey because they are more straightforward and do not require as much time to respond like in open-ended questions (Fine 2006). Whether it is open or closed-ended, the survey should begin with interesting questions to maintain the respondent’s interest and increase the chances of them completing the entire survey (Fine).

Bias is a significant issue to consider when developing a survey. Writing questions with neutral language is important in the design of an effective survey—the goal is to get the respondent’s opinions, not the author’s (Fine 2006). It is important to distinguish between biased and guided responses. Guided responses steer the respondent to answer a question in a way that is relevant to the survey. Biased responses affect the respondent emotionally to influence their response (Fine).

Item scales are important for gauging someone's attitude toward a particular idea in a question. There are many types of scales that can be used in a survey. One of the most popular types is the Likert scale. The Likert scale uses statements rather than questions to represent opinions; it typically uses a five or 10 point scale to gauge the respondent's agreement or disagreement with a particular statement (Alreck & Settle 1995). The reason this scale is so popular is because of its versatility. It can be used to convey either simple or technical information. They are easily composed and require minimal instruction to cover many questions (Alreck & Settle).

Summary

The purpose of the literature review was to understand what methods are currently in use for training in organizations and what systems they have in place to evaluate those methods. These training methods have been implemented by companies in all sorts of industries including fire departments. The literature review concluded by discussing the best ways to formulate a survey as a tool to collect data. In the methodology section this will be discussed in much greater detail.

Chapter III: Methodology

The purpose of this study was to evaluate training methods currently in place at the MFD and make recommendations for improving those methods based upon the results of the evaluation. In the first part of this chapter the subject selection criteria is discussed, followed by details of how the survey instrument was constructed and finally the two remaining sections discuss how the data was collected and analyzed. The final section in the methodology portion of this study describes the limitations of the survey instrument.

Subject Selection and Description

To maximize the response rate, the 13 question, questionnaire was sent out to all MFD and RLFD POCs and full-time firefighters, 76 in total. The target response rate was 50 responses. RLFD was chosen to be included in the sample to give another similar sized fire department to compare with the MFD results.

Instrumentation

One of the objectives in this study was to determine the most effective methods of training by means of a survey instrument of MFD firefighters and to analyze the results. A copy of this survey can be found in Appendix B. The survey instrument was developed by the author with input from many sources including several members of the MFD and RLFD. The survey was broken down into three major areas:

- Personal experience
- Personal training experience
- Personal opinions on training

Firefighters engage in many different types of training beyond simply firefighting. Participants were asked to disregard their specific thoughts toward hazmat and EMS training and focus

strictly on their firefighter training. This was accomplished by a statement at the top of the first page of the survey instrument saying that participants should only respond to this survey as it relates to their experiences with firefighter training.

In the personal experience portion of the survey, the participants were asked to indicate their employment level, years of experience and highest completed level of training by a series of pick from one of the following options questions. The training experience portion focused upon time spent training, preferred training environment, examination preferences, instruction preferences, confidence in abilities and mentoring. In this section the participant was asked to select one from a following list of three or four options about their hours of training received per month, preferred examination method and preferred type of instruction. In the next three questions, the participant was asked to state their opinion by either strongly agreeing, agreeing, disagreeing or strongly disagreeing about their ability to do their job safely, proficiently and about their ability to mentor. The respondent was prompted to answer a “yes” or “no” question if they answered “disagree” or “strongly disagree” to the question about mentoring as a follow up. The question relating to training environment was on a five-point Likert scale (with five being the most preferred environment and one being the least) with an open-ended follow up question that asked for another preferred training environment not included in the five listed above.

For the personal opinions portion of the survey, three open-ended questions were posed. The first two questions asked the participants which parts of their firefighter training they felt were the most and least beneficial. The final question of the survey asked the respondent about how training could be more beneficial to them.

In order for research to be conducted at the University of Wisconsin-Stout, the Institutional Review Board (IRB) must approve the data collection instrument and all associated documents. This study was no exception to that rule; it was reviewed and approved by the IRB. In order for a survey or any kind of data collection instrument to pass, proof that the participants are kept anonymous must be shown. The survey instrument did not have indicators of any kind that could reveal the identity of the participants. Since the survey instrument was given exemption under category 2/3 on the IRB form, a completed consent form was not required for participation in the study.

Data Collection Procedures

All full-time firefighters and POC's present for training drills were asked to complete the survey by the chiefs from their respective fire departments. To maintain confidentiality of the data, the completed surveys were placed in sealed opaque envelopes which were kept in the chiefs' offices. The author then picked up all the completed surveys from the fire chiefs of both of the departments after they informed the author that all of the surveys had been completed.

Data Analysis

To get the most out of the data received from the questionnaires, cross tabulation and content analysis were methods utilized. Cross tabulation simply categorizes respondents into groups and compares their answers to each question with that of the other groups. For the purposes of this project, groups were cross tabulated three ways: the first way was by fire department, employment status and as a whole group. The point of cross tabulation is to look at how questions were answered from different perspectives and determine what the most effective methods of training would be for different groups, if in fact there was any difference between the groups.

The cross tabulation for this study was done by taking all the answers from part one of a particular questionnaire to get a profile of a particular respondent. For example, an MFD full-time with one to five years experience is the profile that was created for respondents for the purpose of cross tabulation. Cross tabulation statistical data was then put into tables to show exactly how many respondents fit into each of the factoring categories.

Part two focused on seeking out learning and instruction type preferences. Data gathered in question five of the questionnaire was arranged in a series of five bar charts broken down by each learning style. This was done to clearly illustrate the trends in preferred learning styles amongst the respondents. One more additional bar chart was created to summarize the results of all the learning styles. In questions six through 10, data was separated by firefighter location and employment status. This data was then presented in a series of five bar charts, one for each question. The results of each question were analyzed and discussed.

As stated in the previous chapter, open-ended questions can be difficult to analyze. In order to most effectively analyze the open-end questions found in parts two and three in the questionnaire, content analysis was performed. This method was chosen to best illustrate the clearest picture of what parts of the training were working well and what were not. Content analysis was performed by grouping the most frequent answers or similar worded answers to be able to develop some mode trends and illustrate some commonalities between the departments. For example if the answer “classroom” came up in one of the open-ended questions it would be counted toward a total of other answers with that same word used. Simple statistics were used to show what percentages of questions were answered with specific wording.

Limitations

This study has a number of limitations; they include:

1. Results of the data collected by the survey cannot be generalized for the entire fire service as a whole
2. Data collected from each department was relevant mainly to its respective department

Summary

The preceding chapter described how the sample group was selected and how the data collection instrument was designed and implemented. The methodology for how the data was analyzed and limitations of the data were discussed. In the next section, the results of the survey instrument will be displayed and analyzed.

Chapter IV: Results and Discussion

Purpose of the Study

The goals of this study were to:

1. Analyze training of full-time firefighters and POC firefighters at MFD
2. Determine the most effective methods of training by means of a survey of MFD firefighters and analysis of the results
3. Make recommendations to the MFD to make its training more effective and efficient while meeting applicable codes
4. Survey firefighters and see what they feel is the most practical and effective in terms of training

Overview

Questionnaires were sent out to all MFD and RLFD firefighters (76 in all) during November 1st-6th in 2009. The targeted number of responses was 50; the actual number of completed surveys received was 46. This number was slightly low due to illness and vacations of some of the full-time firefighters and the POCs, due to them not being present for the training sessions that the questionnaires were handed out at. Not all of the questionnaires returned were fully completed or completed correctly in all areas, notably question five which was the only “rank the following from 1-5” Likert scale question.

Results

Data was collected using a three-part questionnaire. The categories were: firefighting experience with a series of check one type answers, training experience with a series of check one from the following answers, Likert scale questions with some open-ended follow up questions and some agree/disagree questions. The last part of the questionnaire consisted of

open ended questions asking the respondent to indicate parts of their training they found the most and least beneficial, as well as any other suggestions they had to improve their training at their respective fire departments.

Part one. The first part was designed around establishing some demographic information. For all of the answers given to every question on all of the questionnaires, please refer to Appendices C and D. This demographic information was collected in order to see if there were any correlations between years of experience and highest completed training level as has been indicated in previous studies. The breakdown of employment status of all the respondents from the MFD and RLFD is found in Table 1.

Table 1

Employment Status MFD and RLFD

Rating Order	Response Total	Response Percent
MFD Full-Time	19	41.3%
MFD POC	12	26.1%
RLFD Full-Time	5	10.9%
RLFD POC	10	21.7%

The second table illustrates the level of training of firefighters at the MFD and RLFD.

Table 2

Level of Training MFD and RLFD

Response	Response Total	Response Percent
Entry Level I	0	0%
Entry Level II	0	0%
Firefighter I	8	17.4%
Firefighter II	19	41.3%
Beyond Firefighter II	19	41.3%

As shown in the results above, all of the respondents were certified at the State of Wisconsin minimum for a full-time firefighter of Firefighter I and 82.6 percent were at or beyond Firefighter II. Respondents who indicated their training was “Beyond Firefighter II” at the full-time level were mainly trained to one level or another of Fire Officer, Apparatus Operator and or Firefighter III.

Table 3 indicates the years of experience of all the firefighters at the MFD and RLFD.

Table 3

Years Experience MFD and RLFD

Rating Order	Response Total	Response Percent
1-5 Years	9	19.5%
5-10 Years	11	23.9%
10-15 Years	13	28.3%
15+ Years	13	28.3%

Over half of the respondents had 10 or more years of firefighting experience. This is important because this will dictate what types of training need to be conducted on a regular basis. There are differences in methods of delivery for brand new topics and introductory-type information versus simply reviewing these topics as is done for experienced firefighters. This experience demographic must be factored into training program design.

Part two. The second part of the questionnaire focused around a five point Likert scale question, some “check one from the following” type questions and some “strongly agree-strongly disagree” type statements. To get a clear picture of what the preferred training environments were, the respondents were asked to rank five training environments: classroom, computer, on-the-job, hands-on at the fire department and hands-on elsewhere on a five point Likert scale. The scale placed a response of one as the lowest and least preferred training

environment and placed a response of five as the highest and most preferred training environment. The results of this question can be viewed in Figures 1-6. The figures go in order from the least preferred training environments to the most preferred. Figure 6 is simply a summary of Figures 1-5.

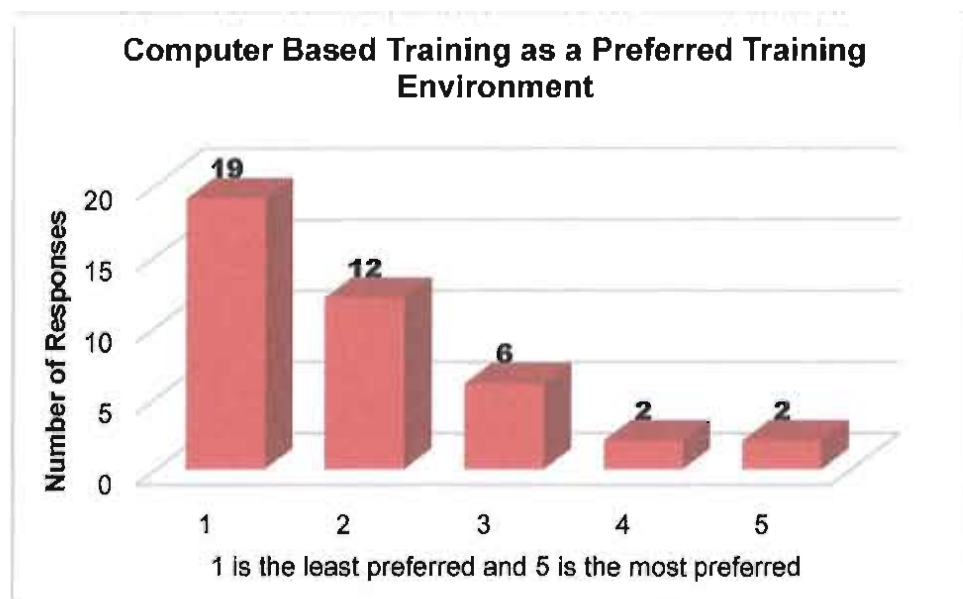


Figure 1

Response to "Computer Based Training as a Preferred Training Environment"

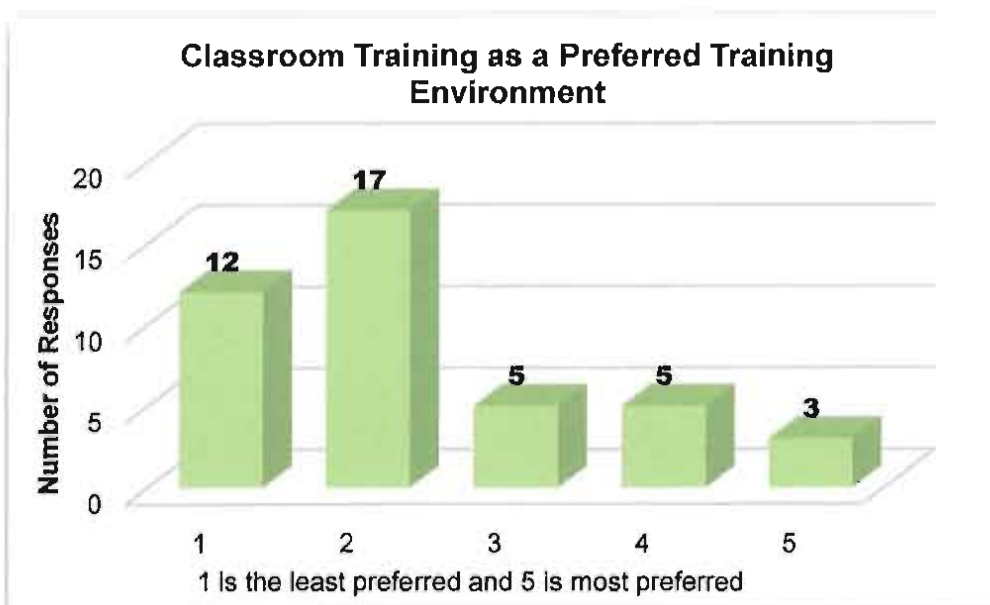


Figure 2

Response to "Classroom Training as a Preferred Training Environment"



Figure 3

Response to "On-the-job Training as a Preferred Training Environment"

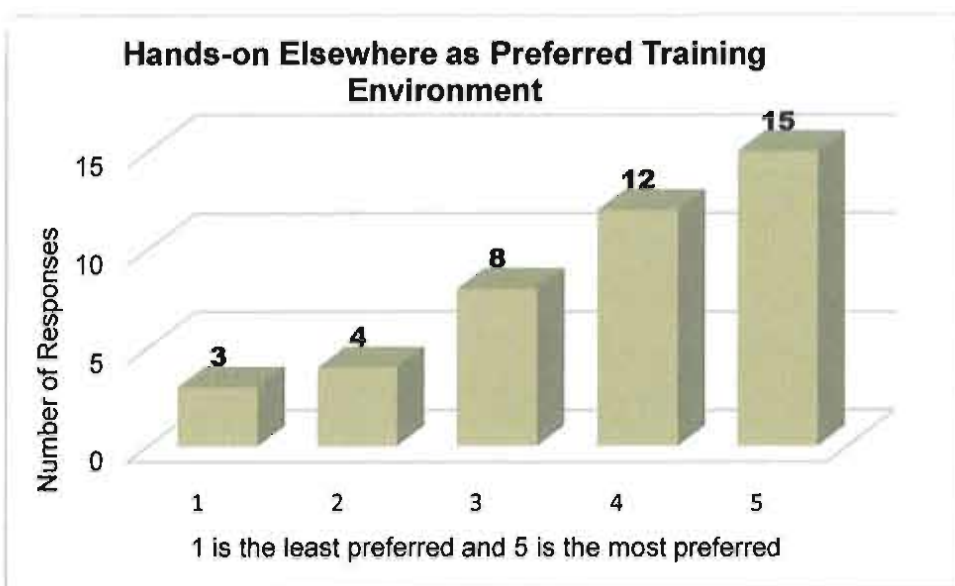


Figure 4

Response to "Hands-on Elsewhere as Preferred Training Environment"

Hands-on elsewhere refers to hands-on training that is conducted at a location other than the fire department. An example of this type of environment would be a live-burn exercise at an abandoned house.

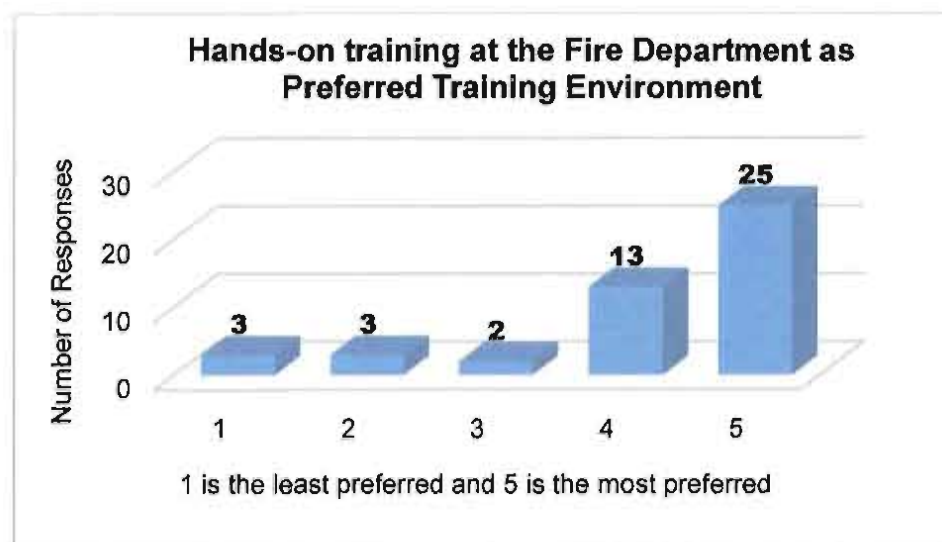


Figure 5

Response to "Hands-on Training at the Fire Department as Preferred Training Environment"

Hands-on training at the fire department refers to training that is conducted at the fire department. An example of this type of training would be training on fire apparatus at the fire department.

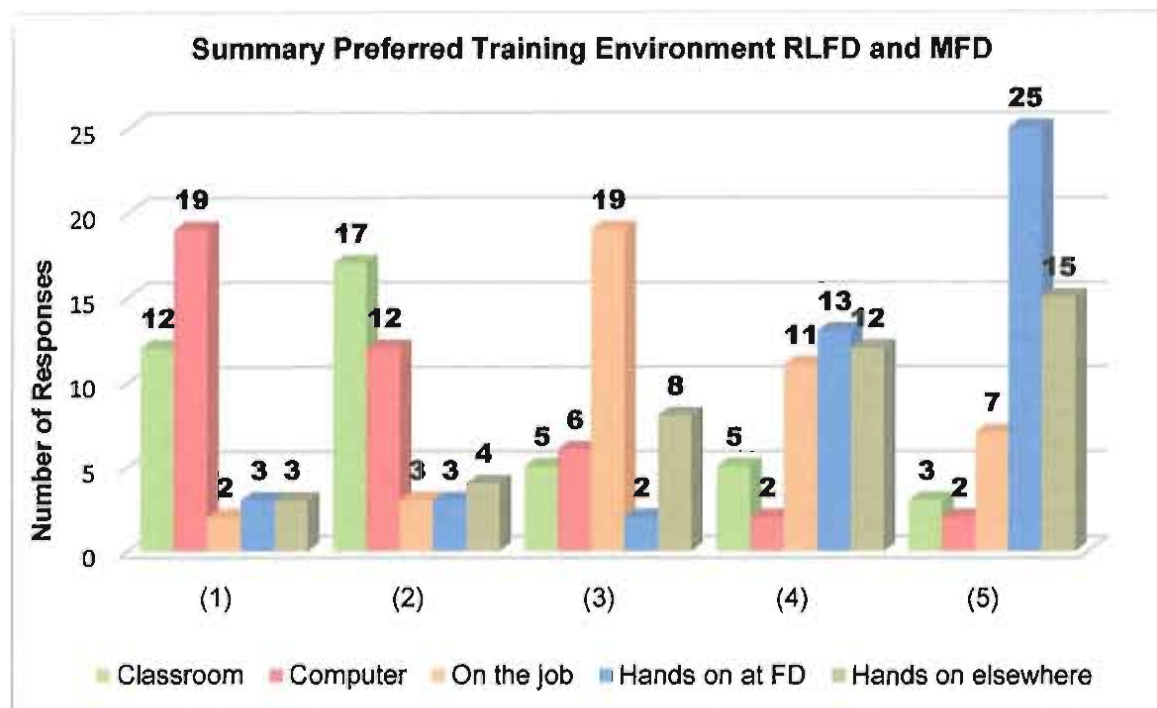


Figure 6

Summary Preferred Training Environment RLFD and MFD

As the data from the results of this question is broken down, some major trends begin to arise. First, computer-based and classroom training are not well liked by a majority of the respondents. What becomes apparent is that hands-on training either at the fire department or elsewhere is the most preferred methods amongst the respondents.

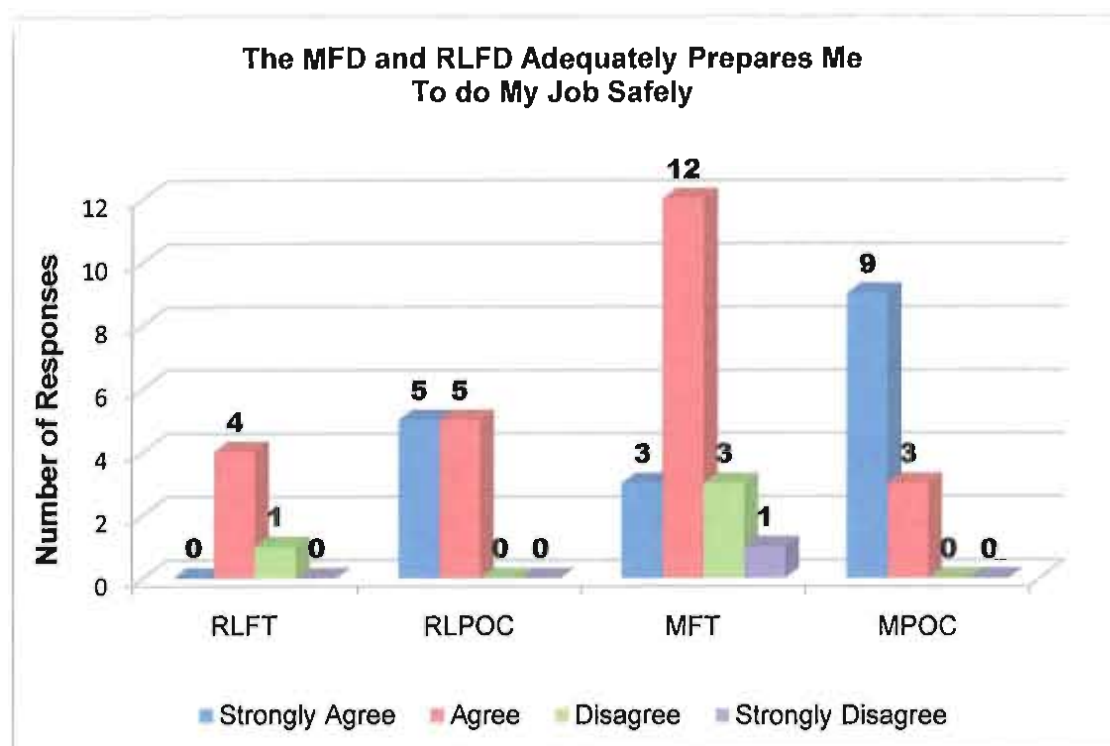


Figure 7

Response to "The MFD and RLFD Adequately Prepares Me to do My Job Safely"

The above figure illustrates that a majority of the respondents strongly agree or agree (41 in total) that their respective fire departments adequately prepare them to do their jobs safely. An interesting but small trend that arises from these results is that the five respondents from a combination of both departments disagree or strongly disagree with that statement were all full-time firefighters.

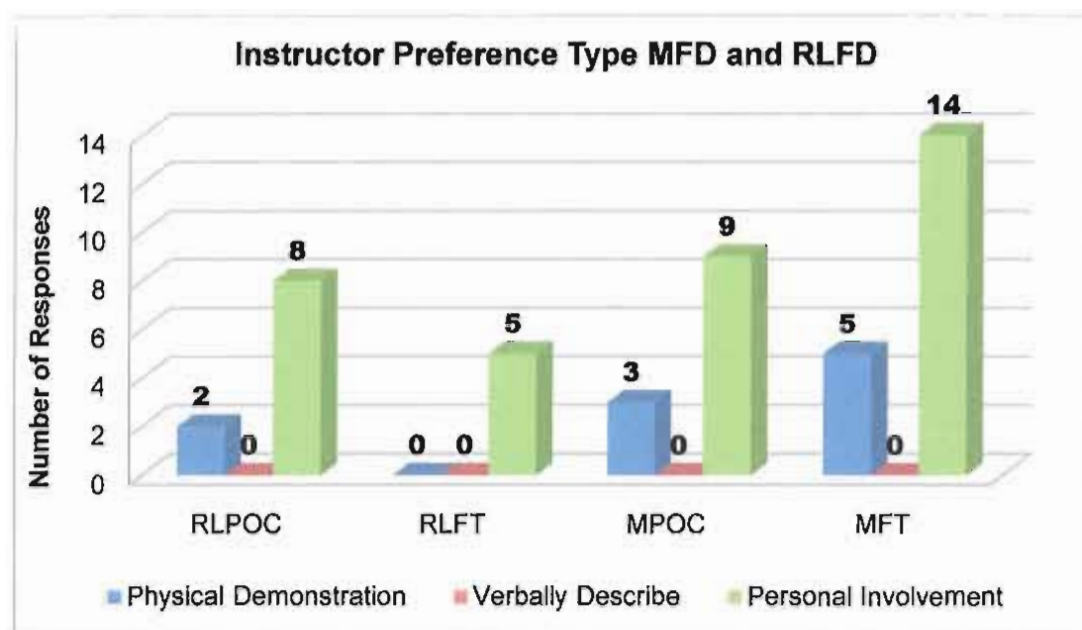


Figure 8

Instructor Preference Type MFD and RLFD

The way the results of this question were distributed came as no surprise; they closely resemble the results from question five shown in Figures 1-6. Most firefighters like to get involved in the skills and processes they are learning during their training. Not one of the 46 participants selected the “verbally describe” for their preferred instructor preference.

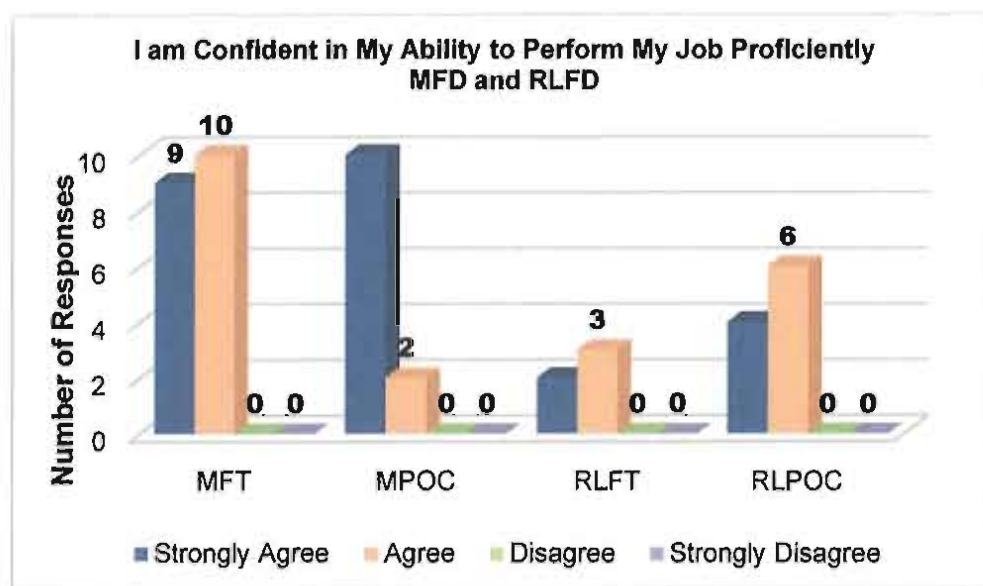


Figure 9

Response to "I am Confident in My Ability to Perform My Job Proficiently MFD and RLFD"

All of the respondents were confident in their abilities to perform their job proficiently.

None of the respondents disagreed with the statement.

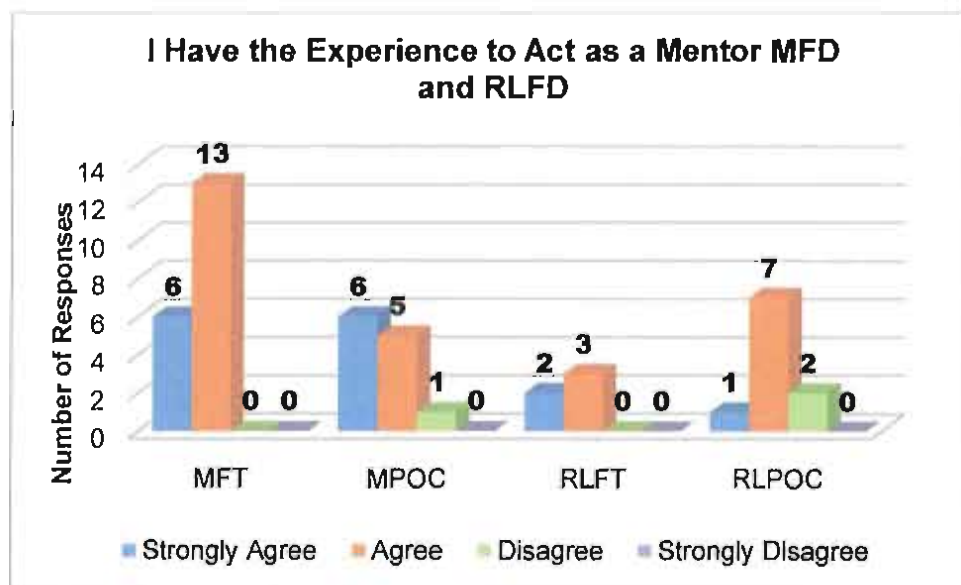


Figure 10

Response to "I Have the Experience to Act as a Mentor MFD and RLFD"

As shown, all full-time respondents from both departments at least agreed that they had the experience to act as a mentor. The MFD POC that disagreed with the statement answered yes in the follow up question. Two RLFD POCs also disagreed with this statement and in the follow up question, one stated that having a mentor would be something they would value and one stated that it would not be something they would value.

Part three. The final part of the survey was designed around obtaining firefighters' personal opinions on their training through the utilization of three open-ended questions. The completion rate between both departments for this section was remarkably high for an open-ended section; 43 out of 46 respondents (93 percent) filled out at least one portion of the section. Some major trends were realized between the departments. Major trends from the first question of part three "What part of your training at the fire department do you feel is the most beneficial?" include:

- Nine out of 15 (60 percent) of RLFD firefighters stated that hands on training was most beneficial
- Three out of 15 (20 percent) of RLFD firefighters stated that having certified instructors was most beneficial
- 18 out of 31 (58 percent) of MFD firefighters stated that hands-on training was most beneficial
- Three out of 31 (9.6 percent) of MFD firefighters stated that training involving teamwork was most beneficial

The second open-ended question asked "What part of your training at the fire department do you feel is the least beneficial?" Answers that repeatedly came up included:

- Three out of 15 (20 percent) RLFD firefighters stated that classroom training was the least beneficial
- Three out of 15 (20 percent) of RLFD firefighters stated that lack of training time was the least beneficial
- Seven out of 31 (22.6 percent) of MFD firefighters stated that classroom training was the least beneficial
- Four out of 31 (12.9 percent) of MFD firefighters stated that videos were the least beneficial
- Three out of 31 (9.6 percent) of MFD firefighters stated that computer training was the least beneficial
- Three out of 31 (9.6 percent) of MFD firefighters stated that training on not commonly used skills or redundant subjects was the least beneficial

The third and final open-ended question asked “What suggestions do you have to make the training more beneficial to you?” Answers that came up included:

- Seven out of 15 (46.6 percent) of RLFD firefighters stated that they would like to be able to train more often
- Three out of 15 (20 percent) of RLFD firefighters stated that they would like to be able to engage in more hands-on training
- Five out of 31 (16.1 percent) of MFD firefighter stated they would like to be able to engage in more hands-on training
- Five of 31 (16.1 percent) of MFD firefighters are happy with how the training is currently done

- One out of 31 (3.2) percent stated that post call review with a debriefing would be a good idea

For the first two questions, the top concerns were the same for MFD and RLFD. The most beneficial training was hands-on training. The least beneficial training was classroom training, although this received as many responses as lack of training time did at RLFD, which will be addressed later.

The two departments differed greatly on how to best improve training. Rice Lake firefighters indicated that they simply wanted to be able to train more often as seven out of 15 of the respondents indicated; as it stands now they train formally only once a month. Menomonie firefighters on the other hand had much more variation in their answers and the only answer that repeatedly arose was that they wanted more hands-on training. Part of the reason for the difference in the answers between the two departments is that the MFD has a dedicated training officer position, which the RLFD does not. The second reason is that MFD POCs train two times per month as opposed to the one time per month that RLFD trains all their firefighters.

Summary

The fourth chapter of this project was designed to present the data gathered from the questionnaires in the most effective yet simple way possible. The data presented was split into three sections due to the nature of the questions posed in the sections. In the fifth and final chapter of this project, recommendations will be made based off of the interpretations of the data collected.

Chapter V: Conclusions and Recommendations

Firefighters run into buildings when everyone else is running out. They must be able to perform their job to the highest level no matter what the time of day or how fatigued they are. This cannot be accomplished unless they train to the point where their job becomes second nature to them. The purpose of this study was to identify the most effective methods of firefighter training.

Limitations

This study had a number of limitations. They were:

1. Only two municipal fire departments were being considered in the study
2. Training was evaluated over a three month timeframe
3. Results of the research and recommendations were limited to the MFD and RLFD

Summary

On-the-job training. On-the-job training was ranked in the middle for preferences amongst the choices given on the questionnaire with 65 percent of the respondents ranking it at a three or a four on the ranking scale. This is probably due to the fact that it is not really thought of as training by the people engaged in it, but simply just getting to know a job. For that reason, on-the job training is ranked where it is, because it is generally not thought of as very exciting or interesting. It is thought of as just the normal duties of the occupation.

Classroom training. Classroom training was ranked near the bottom of training preferences and was mentioned many times in the part of training liked the least in the open-ended questions. For kinesthetic learners, which it is fair to say makes up a significant portion of firefighters from both departments, this type of training tends to not be interactive to the level that would best suit the firefighters. The open-ended questions did indicate that the firefighters

liked the classroom for introduction to new topics, but the transition to hands-on training should be made as soon as possible.

Customized training. This type of training was not directly addressed by name in the questionnaire. This is the style of training that hands-on training encompasses, be it at a fire department or at an off-site training burn. Hands-on training was undoubtedly the most popular type of training amongst the questionnaire respondents. This type of training was the highest ranked among the five styles mentioned in the questionnaire and was also brought up in 59 percent of the open-ended questions as being the most beneficial type of training. It is apparent that the MFD would greatly benefit by maximizing the time spent on hands-on training with its training tower at MFD Station II.

Mentoring. The availability of firefighters with enough experience to act as mentors was confirmed with the results of this study as 93 percent of the respondents indicated they had the experience to act as mentors. Seven percent, or three respondents, were willing to admit that they lacked the experience to act as a mentor. Two of those respondents, one from each department, indicated that having a mentor would be something they would value. This shows that there is at least interest in both departments for firefighting mentoring programs, which are not currently in use by either department.

Computer-based training. This was another type of training that was ranked among the least favored types of training with 31 of the 46 respondents ranking it at a two or lower on the ranking scale. Reasons were not given as to why this was ranked among the respondents as low as it was. As it was explained to the author during the beginning stages of the research, the software plays much like a video game. This is one area of training that will become more mainstreamed and accepted as the technology develops further and more firefighters become

computer savvy. This type of training could also replace the classroom with real-time instruction by certified instructors at one location and students spread out amongst many locations following along with class on computers. This technology is currently in use at the university and technical college levels. This technology will allow fire departments to save on travel costs as well as allowing the ability for firefighters to attend training sessions while on duty which will also save on costs.

Recommendations

First and foremost it is understood that training is not free and that funding at the MFD and RLFD must go to all the other expenses incurred by the departments. With that said, it is still necessary to maximize the training budgets at both departments. This is especially true at the RLFD as nearly 47 percent of the respondents from that department stated that they would like to be able to train more often. Therefore, to ultimately make training more effective, more funds need to be appropriated for training. To secure sufficient funds for training, it is the author's recommendation to secure training grants through governmental agencies whenever possible.

As indicated in the results section, an overwhelming percentage of firefighters prefer hands-on training, it can be reasonably assumed that this is the preferred method of training by firefighters nearly everywhere. It is an accepted fact that it is not always practical or possible to conduct hands-on training for every subject. When it is an option it should be taken into great consideration as it is the most heavily favored method of training by the firefighters who participated in the study. When funds can be appropriated, RLFD would greatly benefit with having a training tower on-site at their department as MFD does.

As fire departments look to further integrate computer-based training programs into the regular training programs, very specific research needs to be conducted on what programs have

the most positive feedback and are the most effective. It is the author's opinion that it will develop into an indispensable tool for training in the coming years, especially for topics such as Incident Command System (ICS) where this type of training is already utilized and other similar topics. Computer-based training is not at the stage yet where it can automatically replace the classroom, another less-desired form of training amongst firefighters. Successfully transitioning to widely accepted computer-based programs will take several years to accomplish and should be looked at as a long-term plan for both departments.

The potential for mentoring programs to exist and be effective is present at both departments. If either department decides to start a mentoring program it will need to be carefully developed and closely monitored to ensure that the desired results of the program are being realized. This type of program is not a high-priority item but should be considered in the training programs of both departments over the next five to ten years.

Recommendations for Future Research

This study focused only on firefighting and intentionally omitted other areas of fire department operations to make it focused enough for practical purposes. Training for topics such as EMS, HAZMAT, and rescue amongst other areas are all very significant aspects of fire department operations that need to be continuously evaluated and modified as times and technology continue to change. Both departments should further look into computer-based training programs, as this technology will only get better with time. As different methods of training continue to be developed and implemented by MFD and RLFD, evaluation of the effectiveness of those methods will need to be continuously monitored.

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Appendix A: Human Subject Consent Form

Title: Identification of Best Methods Best Methods of Firefighter Training

At the Menomonie Fire Department

Investigator:

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Rice Lake, WI 54868
(715) 790-7245

Research Sponsor:

Bryan R. Beamer
University of Wisconsin-Stout
P.O. Box 790
Menomonie, WI 54751
(715) 232-5178

Description:

The objective of this research is to identify the best methods of firefighter training at the Menomonie Fire Department. This study is a first of its kind for the Menomonie Fire Department and the results of the study will greatly benefit future firefighter training programs.

Risks and Benefits:

There are no risks to the subjects for the voluntary participation in this survey.

Identifying the best training practices will allow those in charge of training at the Menomonie Fire Department to establish more effective training programs for its firefighters.

Time Commitment:

Your time commitment in the participation in this study will be approximately 15 minutes.

Confidentiality:

Your name will not be included on any documents. You can not be identified from any of this information. This informed consent will not be kept with any of the other documents completed with this project.

Right to Withdraw:

Your participation in this study is entirely voluntary. You may choose not to participate without any adverse consequences to you. Should you choose to participate and later wish to withdraw from the study, you may discontinue your participation at this time without incurring adverse consequences.

IRB Approval:

This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator.

Investigator:

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Statement of Consent:

By completing the following survey you agree to participate in the project entitled,
Identification of Best Methods Best Methods of Firefighter Training at the Menomonie Fire
Department.

Appendix B: Survey Instrument

Firefighter Training Questionnaire

This project has been reviewed by the UW-Stout IRB as required by the Code of Federal Regulations Title 45 Part 46

These questions should be answered as they relate to **firefighting only** and not to hazmat or EMS.

Part I – Your experience

1. Employment at Menomonie Fire Department – Please check one:

☐

Full -time

☐

Paid On Call (POC)

2. Years experience – Please check one:

☐

1-5_Years

☐

5-10 Years

☐

10-15 Years

☐

15+ Years

3. My highest level of training is – Check one:

☐

Entry Level I

☐

Entry Level II

☐

Firefighter I

☐

Firefighter II

☐

Beyond Firefighter II

If “Beyond Firefighter II” was answered for question 3 please write in highest level of training. _____

Your Training Experience

4. Last month, about how many hours of training did you receive?

☐

1-5 Hours

☐

6-10 Hours

☐

11-15 Hours

☐

Over 15 Hours

5. What is your preferred training environment? To complete this question:

Read all items listed below and rank the items on a scale of 1 to 5 with regards to your preferred training environment. With 1 being your least preferred training environment and 5 being your most preferred training environment.

☐

classroom

☐

on-the-job

☐

a computer program

☐

“hands-on “ at the fire department

☐

“hands-on” at another location (e.g. Volk Field)

If there is another type of training environment you prefer, please describe.

6. To demonstrate the skills I learn in training I prefer – Please check one:

☐

Paper test

☐

Practical “hands on” test

☐

Verbal test

☐

Test on Computer

7. I prefer the type of instruction where an instructor – Please check one:

☐

Physically demonstrates an activity

☐

Verbally describes an activity

☐

Gets me actively involved in the activity

8. The MFD provides me adequate training to do my job safely, please check the one that applies:

☐

Strongly Agree

☐

Agree

☐

Disagree

☐

Strongly Disagree

9. I am confident in my ability to perform my job proficiently

☐

Strongly Agree

☐

Agree

☐

Disagree

☐

Strongly Disagree

10. I have the experience to serve as a mentor to someone on the department

☐

Strongly Agree

☐

Agree

☐

Disagree

☐

Strongly Disagree

If you answered “disagree” or “strongly disagree” to question 10 would having a mentor be something you would value?

☐

Yes

☐

No

Part 3 – Your Opinion

11. What part of your training at the fire department do you feel is the most beneficial?

12. What part of your training at the fire department do you feel is the least beneficial?

13. What suggestions do you have to make the training more beneficial to you?

END OF QUESTIONNAIRE

Thank you for your participation!

Appendix C: Raw Data From RLFD Questionnaires

RLFD Survey Results

33 sent out 15 returned

5 full-time and 10 POCs returned the survey

POC Training Levels and Years Experience

Table 1 Years Experience POC

Response	Frequency	Percentage
1-5 Years	4	40%
5-10 Years	2	20%
10-15 Years	4	40%
15+ Years	0	0%

Table 2 Level of Training POC

Response	Frequency	Percentage
Entry Level I	0	0%
Entry Level II	0	0%
Firefighter I	5	50%
Firefighter II	5	50%
Beyond Firefighter II	0	0%

Table 3 Years Experience Full-time

Rating Order	Response Total	Response Percent
1-5 Years	0	0%
5-10 Years	0	0%
10-15 Years	1	20%
15+ Years	4	80%

Table 4 Level of Training Full-time

Rating Order	Response Total	Response Percent
Entry Level I	0	0%
Entry Level II	0	0%
Firefighter I	0	0%
Firefighter II	3	60%
Beyond Firefighter II	2	40%

Of the respondents that were beyond Firefighter II one was Fire Officer I and the other was Fire Officer III

Table 5 Monthly Training Hours Received POC

Rating Order	Response Total	Percentage
1-5 Hours	9	90%
6-10 Hours	0	0%
11-15 Hours	1	10%
Over 15 Hours	0	0%

Table 6 Monthly Training Hours Received Full-time

Response	Frequency	Percentage
1-5 Hours	2	40%
6-10 Hours	3	60%
11-15 Hours	0	0%
Over 15 Hours	0	0%

Table 7 Preferred Training Environment POC

Response	1	2	3	4	5
Classroom	20% (2)	40% (4)	10% (1)	0% (0)	10% (1)
Computer	50% (5)	10% (1)	20% (2)	0% (0)	0% (0)
On-the-job	0% (0)	10% (1)	30% (3)	30% (3)	10% (1)
Hands on at FD	0% (0)	0% (0)	0% (0)	30% (3)	70% (7)
Hands on elsewhere	0% (0)	10% (1)	30% (3)	10% (1)	30% (3)

Some respondents did not rank the items they simply indicated their most preferred method

Table 8 Preferred Training Environment Full-time

Response	1	2	3	4	5
Classroom	20% (1)	20% (1)	0% (0)	20% (1)	20% (1)
Computer	20% (1)	20% (1)	20% (1)	20% (1)	0% (0)
On the job	20% (1)	20% (1)	40% (2)	0% (0)	0% (0)
Hands on at FD	20% (1)	0% (0)	0% (0)	20% (1)	60% (3)
Hands on elsewhere	0% (0)	20% (1)	20% (1)	20% (1)	20% (1)

Some respondents did not rank the items they simply indicated their most preferred method

Table 9 Preferred skill demonstration method POC

Rating Order	Response Total	Response Percent
Paper Test	0	0%
Verbal Test	0	0%
Hands on test	10	100%
Test On Computer	0	0%

Table 10 Preferred skill demonstration method Full-time

Rating Order	Response Total	Response Percent
Paper Test	0	0%
Verbal Test	4	80%
Hands on test	0	0%
Test On Computer	0	0%

1 respondent did not answer the question

Table 11 Instructor preference type POC

Rating Order	Response Total	Response Percent
Physical demonstration	2	20%
Verbally describe	0	0%
Personal involvement	8	80%

Table 12 Instructor preference type Full-time

Rating Order	Response Total	Response Percent
Physical demonstration	0	0%
Verbally describe	0	0%
Personal involvement	5	100%

Table 13 The RLFD provides adequate training to work safely POC

Response	Frequency N=10	Percentage
Strongly Agree	5	50%
Agree	5	50%
Disagree	0	0%
Strongly Disagree	0	0%

Table 14 The RLFD provides adequate training to work safely Full-time

Response	Frequency N=5	Percentage
Strongly Agree	0	0%
Agree	4	80%
Disagree	1	20%
Strongly Disagree	0	0%

Table 15 I am confident in my ability to perform my job proficiently POC

Response	Frequency	Percentage
Strongly Agree	4	40%
Agree	6	60%
Disagree	0	0%
Strongly Disagree	0	0%

Table 16 I am confident in my ability to perform my job proficiently Full-time

Response	Frequency	Percentage
Strongly Agree	2	40%
Agree	3	60%
Disagree	0	0%
Strongly Disagree	0	0%

Table 17 I have the experience to act as a mentor to someone on the department POC

Response	Frequency	Percentage
Strongly Agree	1	10%
Agree	7	70%
Disagree	2	20%
Strongly Disagree	0	0%

Of those that disagreed with the mentoring question one stated that having a mentor would be something they would value and one stated that it would not be something they would value

Table 18 I have the experience to act as a mentor to someone on the department Full-time

Response	Frequency	Percentage
Strongly Agree	2	40%
Agree	3	60%
Disagree	0	0%
Strongly Disagree	0	0%

Your Opinion Responses

POC

What part of your training at the fire department do you feel is the most beneficial? (9 responded

I did not write anything)

1. Hands on with the other firefighters
2. Hands on
3. Hands on structural firefighting experience
4. All of it
5. Hands on
6. All
7. Hands on, on scene
8. Certified firefighter training programs
9. Practical training of the scenarios that could happen

What part of your training at the fire department do you feel is the least beneficial?

1. Classroom
2. Only once a month
3. Things that wouldn't happen on fire scene (ladder testing, hose testing)
4. N/A
5. Nothing
6. Watching long videos
7. Unknown- the training varies, and I feel any type of training is beneficial
8. Nothing
9. Bookwork or classroom training

What suggestions do you have to make the training more beneficial to you?

1. None, we've improved drastically over the past five years
2. More training
3. More training

4. Unknown, depends on what type of training we are doing
5. More drills, i.e. twice a month
6. Make it more often
7. More hands on group activities

Full-time

Follow to question five responses

1. Use of training props, simulators, training towers

If there is another type of training environment you prefer please describe

1. Use of training props, simulators, training towers

What part of your training at the fire department do you feel is the most beneficial?

1. Training by certified instructors
2. Management/ command and control
3. Hands on
4. Hands on, videos that pertain to what we do, classes put on by certified department instructors
5. Hands on in small groups

What part of your training at the fire department do you feel is the least beneficial?

1. Large group trainings, some classroom
2. Last minute put together drills
3. Lack of training time
4. Not enough time, human resources to accomplish quality and consistent training
5. N/A

What suggestions do you have to make the training more beneficial to you?

1. Try to get more training on the latest and new techniques
2. Increased funding for dedicated training officer
3. More time to be able to train
4. Hands on review of basic firefighting, ladders, PPV, search and rescue, preplans
5. Combination of new computer based training with hands on to go with it

Appendix D: Raw Data from MFD Questionnaires

MFD Survey Results

43 total surveys sent out 31 returned

19 full-time 12 POC

Full-Time Data

Table 1 Level of Training Full-time

Rating Order	Response Total	Response Percent
Entry Level I	0	0%
Entry Level II	0	0%
Firefighter I	0	0%
Firefighter II	5	26.3%
Beyond Firefighter II	14	74%

Most of the respondents at MFD were beyond Firefighter II were mainly Firefighter III, Operator/Driver and/or some level of Fire Officer

Table 2 Years Experience Full-time

Rating Order	Response Total	Response Percent
1-5 Years	3	15.8%
5-10 Years	3	15.8%
10-15 Years	6	31.6%
15+ Years	7	36.8%

Table 3 Monthly Training Hours Received Full-time

Response	Frequency	Percentage
1-5 Hours	5	26.3%
6-10 Hours	4	21.1%
11-15 Hours	7	36.8%
Over 15 Hours	3	15.8%

Table 4 Preferred Training Environment Full-time

Response	1	2	3	4	5
Classroom	42.1% (8)	36.8% (7)	5.3% (1)	10.5% (2)	5.3% (1)
Computer	31.6% (6)	42.1% (8)	10.5% (2)	5.3% (1)	5.3% (1)
On the job	0% (0)	0% (0)	63.2% (12)	10.5% (2)	21.1% (4)
Hands on at FD	20% (1)	15.8% (3)	5.3% (1)	36.8% (7)	36.8% (7)
Hands on elsewhere	15.8% (3)	0% (0)	15.8% (3)	26.3% (5)	63.2% (8)

Some respondents did not rank the items they simply indicated their most preferred method

Table 5 Preferred skill demonstration method Full-time

Rating Order	Response Total	Response Percent
Paper Test	2	10.5%
Verbal Test	1	5.3%
Hands on test	15	78.9%
Test On Computer	1	5.3%

1 respondent did not answer the question

Table 6 Instructor preference type Full-time

Rating Order	Frequency	Percentage
Physical demonstration	5	26.3%
Verbally describe	0	0%
Personal involvement	14	73.7%

Table 7 The MFD provides adequate training to work safely Full-time

Response	Frequency N=19	Percentage
Strongly Agree	3	15.8%
Agree	12	63.2%
Disagree	3	15.8%
Strongly Disagree	1	5.3%

Table 8 I am confident in my ability to perform my job proficiently Full-time

Response	Frequency	Percentage
Strongly Agree	9	47.4%
Agree	10	52.6%
Disagree	0	0%
Strongly Disagree	0	0%

Table 9 I have the experience to act as a mentor to someone on the department Full-time

Response	Frequency	Percentage
Strongly Agree	6	31.6%
Agree	13	68.4%
Disagree	0	0%
Strongly Disagree	0	0%

Table 10 Years Experience POC

Response	Frequency N=12	Percentage
1-5 Years	2	16.7%
5-10 Years	6	50%
10-15 Years	2	16.7%
15+ Years	2	16.7%

Table 11 Level of Training POC

Response	Frequency	Percentage
Entry Level I	0	0%
Entry Level II	0	0%
Firefighter I	3	25%
Firefighter II	6	50%
Beyond Firefighter II	3	25%

Table 12 Monthly Training Hours Received POC

Rating Order	Response Total	Percentage
1-5 Hours	9	75%
6-10 Hours	3	25%
11-15 Hours	0	0%
Over 15 Hours	0	0%

Table 13 Preferred Training Environment POC

Response	1	2	3	4	5
Classroom	8.3% (1)	41.7% (5)	25% (3)	16.7% (2)	0% (0)
Computer	58.3% (7)	16.7% (2)	8.3% (1)	0% (0)	8.3% (1)
On-the-job	8.3% (1)	8.3% (1)	16.7% (2)	50% (6)	16.7% (2)
Hands on at FD	8.3% (1)	0% (0)	8.3% (1)	16.7% (2)	66.7% (8)
Hands on elsewhere	0% (0)	16.7% (2)	8.3% (1)	41.7% (5)	25% (3)

Some respondents did not rank the items they simply indicated their most preferred method

Table 9 Preferred skill demonstration method POC

Rating Order	Response Total	Response Percent
Paper Test	0	0%
Verbal Test	0	0%
Hands on test	12	100%
Test On Computer	0	0%

Table 10 Instructor preference type POC

Rating Order	Response Total	Response Percent
Physical demonstration	3	25%
Verbally describe	0	0%
Personal involvement	9	75%

Table 11 The MFD provides adequate training to work safely POC

Response	Frequency N=12	Percentage
Strongly Agree	9	66.7%
Agree	3	33.3%
Disagree	0	0%
Strongly Disagree	0	0%

Table 12 I am confident in my ability to perform my job proficiently POC

Response	Frequency	Percentage
Strongly Agree	10	83.3%
Agree	2	16.7%
Disagree	0	0%
Strongly Disagree	0	0%

Table 13 I have the experience to act as a mentor to someone on the department POC

Response	Frequency	Percentage
Strongly Agree	6	50%
Agree	5	41.7%
Disagree	1	8.3%
Strongly Disagree	0	0%

Of the respondents that disagreed with the mentoring question they stated that having a mentor would be something they would value and one stated that it would not be something they would value

Your Opinion Responses

POC

Follow up open-ended question to question number five

1. Live training burns
2. Hands on/ classroom

3. Different/ new environment

What part of your training at the fire department do you feel is the most beneficial?

1. Bi-monthly drills
2. Hands-on training, tours of area
3. Hand-on, situations that may be encountered on the job
4. Training that directly impacts fire group behaviors—suppression
5. Hands-on
6. Hands-on, practical, things that we do at a fire
7. Hands-on, classroom
8. Life safety training ie. air packs, self rescue, basic skills
9. Hands on, walk around area businesses
10. Hands on
11. Practical application
12. Practical training

What part of your training do you feel is the least beneficial?

1. Classroom
2. N/A
3. None
4. Computer program
5. None
6. Lecture
7. Medical assessment, not used as POCs
8. Class/ videos

9. Lectures and powerpoints
10. Classroom
11. Videos
12. Classroom

What suggestions do you have to make the training more beneficial to you?

1. More radio and communication training
2. Better communication for everyone
3. Having the department pay to keep our training that is above required levels up to date
4. Schedule training operations with other area departments
5. Keep it short, hands on
6. N/A
7. Keep things interesting and we will learn
8. None
9. Good as is
10. None
11. Spend more time demonstrating prior to drill
12. Repetition of basics

Full-time

Follow up open-ended question to question number five.

1. Hands on

What part of your training at the fire department do you feel is the most beneficial?

1. Hands-on training

2. Hands-on training
3. Hands-on training of new ideas and techniques being introduced
4. Teamwork and problem solving
5. Being able to do it while on duty
6. If when we have training, it is when we do hands-on training, practical training
7. Hands-on practical review, on the job
8. Training with staff that you will be working with
9. Repetition, it creates a sense of familiarity and readiness so that when true emergencies take place we can be ready to face the situation
10. Hands on driving
11. Training which involves hands on training for all aspects
12. Off site advanced rescue training
13. Hands on training such as live burns or vehicle extrication is the most beneficial to me
14. Off site training
15. Hands on out in the field working with the equipment we use
16. Tech rescue

What part of your training at the fire department do you feel is the least beneficial?

1. N/A
2. Computer based
3. There isn't much
4. Lectures because every job or scenario is different and you always learn from the different situations
5. Administrative procedures- common work practices dealing with paperwork issues

6. Learning about the roman aquaducts
7. Video training various subjects
8. Individual training, depending on people to do it themselves doesn't work as well as having someone there to teach/ answer questions
9. Repetitive subject matter
10. Paper test
11. Computer classes
12. Lack of training, video training with no practical
13. We run out of time due to call volume
14. NIMS
15. Not enough of it
16. Written test

What suggestions do you have to make the training more beneficial to you?

1. Mix up type of training
2. Regular schedule and more hands on realistic training situations
3. I have none
4. Make it personal, practical and train on different scenarios
5. More hands on
6. Train on things that are actually used
7. Make a more concrete schedule or lesson plan and stick to the plan
8. More hands on
9. Have more time for training
10. More advanced levels of EMS and fire rescue training

11. Train from past calls and having debriefings after the complicated calls to learn from
12. There has been little to none outside training
13. More live fire training
14. Time to do so